



WORLD INTELLECTUAL PROPERTY ORGANIZATION



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:

C12N 15/86, 7/01, 5/10, 15/63, 15/53, A61K 48/00

A1

(11) International Publication Number:

WO 99/15683

(43) International Publication Date:

1 April 1999 (01.04.99)

(21) International Application Number:

PCT/GB98/02867

(22) International Filing Date:

23 September 1998 (23.09.98)

(30) Priority Data:

9720465.5

25 September 1997 (25.09.97) GB

(71) Applicant (for all designated States except US): OXFORD BIOMEDICA (UK) LIMITED [GB/GB]; Medawar Centre, Robert Robinson Avenue, The Oxford Science Park, Oxford OX4 4GA (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BEBBINGTON, Chris [GB/GB]; Berry Cottage, Westbrook, Boxford, Newbury RG20 8DJ (GB). KINGSMAN, Susan [GB/GB]; "Greystones", Middle Street, Islip, Oxford OX5 2SF (GB). UDEN, Mark [GB/GB]; Flat 5, 158 Abingdon Road, Oxford OX1 4RA (GB). KINGSMAN, Alan [GB/GB]; "Greystones", Middle Street, Islip, Oxford OX5 2SF (GB). MITRO-PHANOS, Kyriacos [GR/GB]; 85 Warwick Road, Oxford OX4 1SZ (GB).

(74) Agents: HARDING, Charles, Thomas et al.; D. Young & Co., 21 New Fetter Lane, London EC4A 1DA (GB).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: RETROVIRAL VECTORS COMPRISING A FUNCTIONAL SPLICE DONOR SITE AND A FUNCTIONAL SPLICE ACCEPTOR SITE

(57) Abstract

A retroviral vector is described. The retroviral vector comprises a functional splice donor site and a functional splice acceptor site; wherein the functional splice donor site and the functional splice acceptor site flank a first nucleotide sequence of interest ("NOI"); wherein the functional splice donor site is upstream of the functional splice acceptor site; wherein the retroviral vector is derived from a retroviral pro-vector; wherein the retroviral pro-vector comprises a first nucleotide sequence ("NS") capable of yielding the functional splice donor site and a second NS capable of yielding the functional splice acceptor site; wherein the first NS is downstream of the second NS; such that the retroviral vector is formed as a result of reverse transcription of the retroviral pro-vector.